

CLAIMS AMENDMENTS

1(previously amended). An optical fiber probe comprising:

a near-field probe having a core transmitting light incident from an external light source and having a circular cone structure formed on an end of the core, and a cladding coated on a surface of the circular cone structure core to protect the core; and

a plurality of thin metal layers coated on the near-field probe, symmetrically disposed on opposite sides of the near-field probe, and spaced-apart from each other to generate an electrical potential difference;

wherein the thin metal layers are spaced-apart from each other by a distance according to at least one of a wavelength of light incident to the near-field probe and a characteristic of a material forming the thin metal layers; and

wherein at least one of the thin metal layers comprises sides forming an angle of 60° with respect to a center of the near-field probe when the wavelength of the light is 400nm

2 (original). The optical fiber probe of claim 1, wherein the thin metal layers is made of aluminum.

3 (previously amended). The optical fiber probe of claim 1, wherein the near-field probe is formed with a conductive layer coated thereon, and at least two portions of the conductive layer are removed to form the thin metal layers.

4 (original). The optical fiber probe of claim 1, wherein the electrical potential difference is generated between the thin metal layers to allow light to pass through the near-field probe.

5-21 (cancelled).

22 (previously presented). An optical fiber probe comprising:
a near-field probe having a core transmitting light incident from an external light source and having a circular cone structure formed on an end of the core, and a cladding coated on a surface of the circular cone structure core to protect the core; and

a plurality of thin metal layers coated on the near-field probe, symmetrically disposed on opposite sides of the near-field probe, and spaced-apart from each other to generate an electrical potential difference;

wherein the thin metal layers are spaced-apart from each other by a distance according to at least one of a wavelength of light incident to the near-field probe and a characteristic of a material forming the thin metal layers; and

wherein at least one of the thin metal layers comprises sides forming an angle of 90° with respect to a center of the near-field probe when the wavelength of the light is 650nm.

23 (previously presented). The optical fiber probe of claim 22 wherein said thin

metal layers are made of silver.

24 (previously presented). The optical fiber probe of claim 22, wherein the near-field probe is formed with a conductive layer coated thereon, and at least two portions of the conductive layer are removed to form the thin metal layers.

25 (previously presented). The optical fiber probe of claim 22, wherein the electrical potential difference is generated between the thin metal layers to allow light to pass through the near-field probe.

26 (canceled).